

REMARKS

Applicants respectfully request reconsideration. Claims 1-10 were previously pending in this application. Claims 1 and 6 have been amended. Claims 2 and 7 have been canceled. As a result, claims 1, 3-6, and 8-10 are pending for examination with claims 1 and 6 being independent. No new matter has been added.

I. Overview of Embodiments of the Invention

One embodiment described in the application is directed to an apparatus for enclosing a digital recording medium to protect it and prevent contamination. Such a cartridge comprises a housing with a shutter mechanism. These interact with a specialized playback and recording system. When the cartridge is loaded into the driving apparatus, the loading tray passes it by a pair of chuck sliders with engagement members that mate with indentations in the shutter mechanism, as well as a rack member and gear. Together, these rotate the shutter open to expose the disc in the cartridge as the cartridge is brought into the playback and recording system (Paragraph 10). In prior art systems, the engagement members have been made of molded plastic exploiting their own elasticity, which were susceptible to fracture due to creep deformation (Paragraph 134). The engagement members of this embodiment of the invention, however, use coil springs to push them into the cartridge. The springs allow the members to not only move toward and away from the cartridge linearly, but to pivot along the edge of the cartridge as it is inserted, i.e. moving angularly coincident with the cartridge (Paragraphs 83 and 86). Both of these improvements lessen the load experienced by the members, which makes the system more reliable.

The foregoing summary is provided solely for the convenience of the Examiner. It should be appreciated that each of the independent claims may not be limited in the manner described in the summary above. Therefore, the Examiner is requested not to rely upon the summary for determining whether each of the claims distinguishes over the prior art of record, but to do so based solely on the language of the claims themselves and the arguments presented below.

II. Claim Rejections Under 35 U.S.C. §102

The Office Action rejects claims 1, 2, 6, and 7 under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,898,765 (“Inoue”). While Applicants do not concede that Inoue anticipates the claims as previously presented, Applicants have amended independent claims 1 and 6 to point out clearly the distinctions.

A. Claims 1-5

Inoue discloses a method and system for enclosing a digital recording medium in a cartridge to protect it from environmental damage or contamination by dust. Inoue’s cartridge includes a housing and a rotating shutter (Col. 1, lines 44-48), which is paired with a specialized playback and recording apparatus. The apparatus comprises engagement members and a rack member that mate with sections of the cartridge in order to rotate the shutter open to expose the disc when the cartridge is inserted into the apparatus (Cols. 5-7). The engagement members are made of molded resin and rely on mold springs to attach them to the base and to govern their action with respect to the cartridge (Col. 11, lines 15-25). In one alternative embodiment, the engagement members are attached via and governed by coil springs, but only move linearly away and toward the cartridge (Col. 12, lines 17-27).

Independent claim 1, as amended, is directed to a shutter opening/closing mechanism for a disc cartridge. The disc cartridge comprises a disc-shaped recording medium, an inner rotor, a shutter, and a housing in which an aperture is formed, said aperture opened or closed by said shutter by rotation of said inner rotor. The shutter opening/closing mechanism comprises: a base relatively movable along one lateral surface of said housing; a first engagement member provided to one end of said base for engaging with a first mating engagement section provided to an outer rim of said inner rotor facing outwards from a lateral side of said housing when said shutter is closed; a second engagement member provided to an other end of said base for engaging with a second mating engagement section provided to the outer rim of said inner rotor facing outwards from a lateral side of said housing when said shutter is opened; said first engagement member and said second engagement member being mounted to said base so that both engagement members are movable

both linearly, perpendicular to a surface of said housing, and angularly, coincident with said surface of said housing; a rack member mounted between said first engagement member and said second engagement member of said base for meshing with a gear provided in a preset area of the outer rim of said inner rotor between said first mating engagement section and said second mating engagement section; and a first torsion coil spring and a second torsion coil spring each having one end of the coiled part of the wire retained by said base and an other end resiliently movable in a direction perpendicular to the surface and in contact with one of the first or second engagement members in a manner to allow the engagement members to move both linearly and angularly.

Inoue does not teach or suggest the limitations of claim 1. Specifically, the engagement members of Inoue are not movable linearly, perpendicular to a surface of the disc cartridge's housing, and angularly, *coincident* with the same surface of the housing. As can be clearly seen from FIGs. 17-20 of Inoue, and FIGs. 1-9 of Inoue where rack member 71 can be seen interacting with housing 1, all of the disclosed embodiments of Inoue's engagement members 72 and 75 are movable only in one manner and always away from the surface of the housing. There is no disclosure of the members being angularly movable coincident with the surface, nor any disclosure of the members being movable in more than one manner. For ease of comparison, FIG. 17 of the present application illustrates the movement required by claim 1, with arrows depicting the movement undertaken by engagement members 75 and 79 (See FIG. 28 for a depiction of the assembly of FIG. 17 interacting with the disc cartridge housing). This movement is not taught or suggested by the movement of Inoue's engagement members. In addition, the first and second torsion coil springs of claim 1 are not taught or suggested by Inoue. Inoue discloses using coil springs in one embodiment, but these coil springs work in reaction to a compressive or tensile force, not a torsional force. Furthermore, the springs of Inoue do not allow the engagement members to move linearly and angularly, as required by claim 1. Therefore, claim 1 patentably distinguishes over Inoue and is in allowable condition.

Claims 2-5 depend from claim 1 and are allowable for at least the same reasons.

B. Claims 6-10

Independent claim 6, as amended, is directed to a disc driving apparatus for use with a disc cartridge. The apparatus comprises: a loading mechanism for causing movement of a disc cartridge between a pull-out position in which the disc cartridge is pulled out to outside a main body unit of the apparatus and a housed position in which the disc cartridge is housed within said main body unit of the apparatus; and a shutter opening/closing mechanism for opening/closing said shutter by rotating said inner rotor of said disc cartridge moved by said loading mechanism between said pull-out position and said housed position to effect opening/closure of said shutter; said shutter opening/closing mechanism including a base relatively movable along one lateral surface of said housing; a first engagement member provided to one end of said base for engaging with a first mating engagement section provided to an outer rim of said inner rotor facing outwards from a lateral side of said housing when said shutter is closed; a second engagement member provided to an other end of said base for engaging with a second mating engagement section provided to the outer rim of said inner rotor facing outwards from a lateral side of said housing when said shutter is opened; said first engagement member and said second engagement member being mounted to said base so that both engagement members are movable both linearly, perpendicular to a surface of said housing, and angularly, coincident with said surface of said housing; a rack member mounted between said first engagement member and said second engagement member of said base for meshing with a gear provided in a preset area of the outer rim of said inner rotor between said first mating engagement section and said second mating engagement section; and a first torsion coil spring and a second torsion coil spring each having one end of the coiled part of the wire retained by said base and an other end resiliently movable in a direction perpendicular to the surface and in contact with one of the first or second engagement members in a manner to allow the engagement members to move both linearly and angularly.

For reasons that should be clear from the discussion above in conjunction with independent claim 1, Inoue does not teach or suggest the limitations of claim 6. Specifically, the engagement members of Inoue are not movable linearly, perpendicular to a surface of the disc cartridge's housing, and angularly, *coincident* with the same surface of the housing, as required by claim 6. In

addition, the first and second torsion coil springs of claim 6 are not taught or suggested by Inoue. Inoue discloses using coil springs in one embodiment, but these coil springs work in reaction to a compressive or tensile force, not a torsional force. Furthermore, the springs of Inoue do not allow the engagement members to move linearly and angularly, as required by claim 1. Therefore, claim 6 patentably distinguishes over Inoue and is in allowable condition.

Claims 7-10 depend from claim 6 and are allowable for at least the same reasons.

In view of the foregoing, it is clear that no case of anticipation has been established, as there is simply no teaching or suggestion in the prior art of record that satisfies the limitations of the pending claims. Therefore, it is respectfully asserted that the rejection of claims 1, 2, 6, and 7 under §102 as allegedly being anticipated by Inoue is improper and should be withdrawn.

III. Rejections Under 35 U.S.C. §103

The Examiner rejected claims 3-5 and 8-10 under 35 U.S.C. §103(a) as allegedly being obvious over Inoue in view of U.S. Patent No. 6,813,236 ("Ezawa"). Applicants respectfully traverse the rejection.

As described above, Inoue does not teach or suggest all limitations of any of the independent claims. Ezawa does not teach or suggest the limitations that are not shown in Inoue. Therefore, claims 3-5 and 8-10 all depend from independent claims that are in a state of allowance. Clearly, no *prima facie* case of obviousness has been established, as there is no teaching or suggestion in the prior art of record that satisfies all the limitations of the pending claims. Moreover, under §103(c)(1), Inoue cannot be cited against the present application as a basis for an obviousness rejection. Therefore, it is respectfully asserted that the rejection of claims 3-5 and 8-10 under §103 as purportedly being obvious over Inoue in view of Ezawa is improper and should be withdrawn.

IV. General Comments on Dependent Claims

Since each of the dependent claims depends from a base claim that is believed to be in condition for allowance, Applicants believe that it is unnecessary at this time to argue the allowability of each of the dependent claims individually. Applicants do not, however, necessarily concur with the interpretation of the dependent claims as set forth in the Office Action, nor do

Applicants concur that the basis for the rejection of any of the dependent claims is proper. Therefore, Applicants reserve the right to specifically address the patentability of the dependent claims in the future, if deemed necessary.

CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment set forth in the Office Action does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Furthermore, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify any concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' representative at the telephone number indicated below to discuss any outstanding issues relating to the allowability of the application.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,

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